

THE GREAT YARMOUTH
URBAN AND PORT SANITARY
AUTHORITY.



THE
ANNUAL REPORT
OF THE
Medical Officer of Health,
FOR 1904.

GREAT YARMOUTH :
J. BUCKLE. PRINTER, CENTRAL HALL, THEATRE PLAIN.

1905.

TOWN HALL,

GREAT YARMOUTH.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to submit my Annual Report for the year 1904.

The Vital Statistics show an all round improvement when the corresponding figures for 1903 and 1904 are compared. The Birth Rate is slightly higher and the general Death Rate from all causes, with the special Death Rates from Zymotic Diseases and Tuberculous Diseases, are all lower. The Zymotic Death Rate would have been reduced by more than 50 per cent., if there had not been a cent. per cent. increase in the number of deaths from the two Zymotic Diseases which are not notifiable during life and, for that reason, cannot be directly controlled by a Sanitary Authority.

The low Infantile Death Rate was the satisfactory feature of my last Report, but the considerable increase in the number of Infantile Deaths in 1904 makes the Infantile Death Rate in that year very little under the average for the past ten years. Two-thirds of this increase is directly due to the increased number of deaths from Diarrhœa and Whooping Cough, the two non-notifiable diseases mentioned above. The number of deaths from the notifiable Infectious Diseases show a considerable decrease, the number of deaths due to Scarlet Fever dropping from 27 to 3, those due to Diphtheria from 44 to 24, and those due to "Fever" from 8 to 4, a total gain of 48 lives.

The total number of notifications of cases of Infectious Diseases has also dropped to less than 50 per cent.: the

cases of Scarlet Fever dropping from 408 to 140, and the cases of Diphtheria from 316 to 162. There was an increase in the number of notifications of Typhoid Fever, but a 50 per cent. diminution in the number of deaths. No case of Small-Pox was notified during the year.

The Isolation Hospital in Estcourt Road has afforded accommodation to half the total number of notified cases of Scarlet Fever, Diphtheria, and Typhoid Fever. The changes made in the administration of the Hospital at the time of my appointment in January have worked satisfactorily.

The water supplied by the Great Yarmouth Water Works was examined, on behalf of the Corporation, twice during the year and found satisfactory. The analyses were printed in full in the Annual Report for 1903, as a matter of urgency, and are not repeated in this Report.

The Reports of the Chief Inspector of Nuisances and the Inspector of Fish, the Port Sanitary Inspector and the Inspector under the Canal Boats' Acts are attached to the end of this Report, and speak for themselves.

I am, Gentlemen,

Your obedient Servant,

H. W. BEACH,

Medical Officer of Health.

STATISTICAL SUMMARY FOR THE YEAR 1904.



GENERAL STATISTICS.

Area of District in acres (excluding area covered by water)	..	..	..	3,566
Population estimated by the Registrar-General for the middle of 1904	..	..	..	52,099
Number of persons to the acre	..	..	..	14.6
Estimated number of Inhabited Houses	..	..	..	12,580
Assessable Value of District	..	..	..	£229,588
Product of a Penny General District Rate (3s. 10d. in the £)	..	..	..	£840
Product of a Penny in all other rates (4s. 0d. in the £)	..	..	..	£858
Total Revenue	..	..	..	£121,956
Net Indebtedness	..	..	..	£341,121

VITAL STATISTICS.

Births registered during 1904 (decennial average for the years 1894-1903, 1442)	..	..	..	1453
Birth Rate (decennial average 28.35)	..	..	..	27.9
Total number of Deaths registered during 1904 (including deaths of residents in the Port)	..	..	..	927
Deaths of Non-Residents in Public Institutions	..	..	..	40
Net deaths of Residents (decennial average 927)	..	..	..	887
Death Rate (decennial average 18.22)	..	..	..	17.02
Deaths of Infants under one year (average 241)	..	..	..	240
Infantile Death Rate per thousand births registered (average 167)	..	..	..	165
Death Rate from Zymotic Diseases (average 2.65)	..	..	..	2.48

AREA OF THE BOROUGH.

The total area is 3,566 acres, Gorleston and Southtown occupying 2,148 acres, the Northern Registration District 895 acres, the Southern District 479 acres, and Runham Vauxhall 44 acres.

ESTIMATED POPULATION.

The Registrar-General's estimate of the population of the whole Borough for the middle of 1904 is 52,099, the estimated populations of the different Districts for the same date being :—

Northern District	..	..	19,830
Southern District	..	..	15,435
Gorleston and Southtown	..	..	16,219
Runham Vauxhall	..	..	615

BIRTHS.

The number of Births registered during the year was 1,453, producing a Birth Rate of only 27·9 per thousand of the estimated population. This rate is not only lower than the local average for the past ten years, but is also 1·2 lower than the average for the 76 great towns. The Births assigned to the different districts were :—

Northern District	..	..	556
Southern District	..	..	409
Gorleston and Southtown	..	..	466
Runham Vauxhall	..	..	22

Seventy-five births were registered as illegitimate, and are included in the totals.

DEATHS.

The total number of Deaths registered in the Borough was 935, but of this number 40 were non-residents dying

in Public Institutions and 8 were non-residents dying in the Port. Deducting the 48 deaths of non-residents, the net total of deaths during 1904 was 887, producing a net Death Rate of 17·02 per thousand of the population, as compared with a Death Rate of 17·2 for the 76 great towns and 16·2 for the whole of England and Wales.

The Death Rate is 1·20 lower than the local average for the past ten years, an annual saving of nearly 60 lives.

Deaths in Public Institutions. One hundred and sixty nine deaths occurred in Public Institutions, distributed as follows :—

Workhouse Infirmary	..	..	90
General Hospital	..	..	43
Isolation Hospital	..	..	12
Gorleston Cottage Hospital	..	..	3
Royal Naval Hospital	..	..	21

Excluding the deaths of 40 non-residents, the number of residents dying in Public Institutions was 129, an average number and 40 per cent. below the corresponding number in 1903.

Ages at Death. Of the total number of deaths, 67 per cent. occurred during infancy or old age, 4 per cent. occurred during the school ages (5-15), and the remainder during the fifty years of working life (15-65).

INFANTILE MORTALITY.

Two hundred and forty children died before they had reached the age of one year. This number produces an Infantile Death Rate of 165 per thousand Births registered, very nearly the average for the past ten years, but an increase of 44 on the corresponding figure for 1903. The increased rate of mortality is largely due to an increase of eighteen deaths from Whooping Cough and an increase of thirty deaths from Diarrhœa and Enteritis.

Among the more important causes of Infantile Mortality were : Premature Birth causing 28 deaths ; Congenital Debility, 26 ; Diarrhœa, 45 ; Enteritis, 11 ; Tuberculous Diseases, 27 ; Whooping Cough, 19 ; other Respiratory Diseases, 20 ; Heart Diseases and Accidents, four each ; and Measles, Diphtheria, and Croup, one each.

The influence of the fine summer last year on Infantile Mortality was very marked, more than a third of the total number of Infantile deaths occurring in the eight weeks ending September 30th.

The influence of illegitimacy as a predisposing cause of early death was unusually apparent, the Death Rate among illegitimate children being nearly twice as great as the Death Rate in legitimate infants.

The advantage to infants of rural surroundings is well shown by comparing the Infantile Death Rate in the Borough with that in the adjoining rural district, the Death Rate in the Borough being at the rate of 165 per thousand births registered, the corresponding rate in the Fleggs being only 96 per thousand.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1904 AND PREVIOUS YEARS.

Year.	Population estimated to middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
				Under 1 year of age.		At all Ages.				No.	Rate.*
		No.	Rate.*	No.	Rate per 1000 Births registered.	No.	Rate.*				
1	2	3	4	5	6	7	8	9	10	11	12
1894	49,969	1436	28.73	189	132	790	15.81	121	36	754	15.09
1895	50,167	1473	29.32	269	183	960	19.13	140	26	934	18.61
1896	50,365	1438	28.55	220	153	872	17.31	119	15	857	17.01
1897	50,564	1487	29.40	274	184	966	19.1	120	17	949	18.76
1898	50,763	1412	27.85	306	216	1121	22.14	164	37	1087	21.41
1899	50,963	1479	29.02	251	169	981	19.21	173	72	909	17.83
1900	51,165	1396	27.28	277	198	1135	22.18	205	60	1075	21.01
1901	51,367	1469	28.60	244	165	950	17.9	194	18	932	18.10
1902	51,610	1406	27.21	201	145	893	17.3	185	41	852	16.50
1903	51,851	1426	27.5	173	121	960	18.51	244	36	924	17.82
Averages for Years 1894—1903.	50,878	1442	28.35	210.7	166	963	18.86	166.5	35.8	927	18.22
1904.	52,099	1453	27.9	240	165	927	17.6	169	40	887	17.02

*Rates in columns 4, 8, and 12 calculated per 1,000 of estimated population.

NOTE.—The deaths included in column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in column 11 are the number in column 7, corrected by the subtraction of the number in column 10.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there.

The “Public Institutions” to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums.

Area of District in acres (exclusive of area covered by water)	-	3,566	
Total population at all ages	...	51,316	} At Census of 1901.
Number of inhabited houses	...	11,821	
Average number of persons per house		4.3	

TABLE II.

VITAL STATISTICS OF GREAT YARMOUTH AND OF THE SEPARATE LOCALITIES IN 1904 AND PREVIOUS YEARS.

Year.	The Borough.				Northern District.				Southern District.				Gorleston & Southtown.				Rumham Vauxhall.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1894	49,969	1,436	754	189	19,875	537	363	73	15,740	464	253	63	13,750	377	167	51	604	17	7	2
1895	50,167	1,473	934	269	19,871	572	440	96	15,712	472	324	110	13,979	396	182	56	605	33	14	7
1896	50,365	1,438	857	220	19,866	501	378	91	15,682	473	309	73	14,211	410	178	54	606	24	7	2
1897	50,564	1,487	919	274	19,862	524	427	94	15,650	485	287	83	14,444	455	241	95	608	23	11	2
1898	50,763	1,412	1087	306	19,857	516	595	115	15,619	420	335	84	14,678	458	270	103	609	18	14	4
1899	50,963	1,479	909	251	19,853	491	442	95	15,583	517	328	78	14,917	455	208	76	610	16	3	2
1900	51,165	1,396	1075	277	19,848	486	523	121	15,550	442	298	79	15,156	444	245	74	611	24	9	3
1901	51,367	1,469	932	244	19,844	529	402	98	15,518	463	286	71	15,393	461	232	70	612	16	12	5
1902	51,610	1,406	852	204	19,839	506	359	72	15,491	431	253	63	15,677	451	236	68	613	18	4	1
1903	51,851	1,426	924	173	19,835	496	383	62	15,468	431	309	57	15,934	471	227	54	614	28	5	0
Averages of Years, 1894-1903.	50,878	1,442	927	241	19,855	516	431	92	15,601	460	298	76	14,814	441	219	70	609	22	9	3
1904	52,099	1,453	887	240	19,830	556	366	86	15,435	409	240	71	16,219	466	272	78	615	22	9	5

NOTE.—Deaths of residents occurring in public institutions beyond the district are included in Sub-columns *e* of this Table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I as to meaning of terms “resident” and “non-resident.”)

NOTE ON TABLE II.—The figures in column c. of this table have been corrected by the exclusion of non-residents and by the inclusion of the deaths of residents occurring in Public Institutions and in the Port of Great Yarmouth, the deaths of residents being allotted to the localities in which they were living previous to their removal to the Institutions in which they died.

The following table shows the necessity for making these corrections if a fair comparison is to be made between the different quarters of the Borough in regard to their relative mortality:—

A.—DEATHS OCCURRING IN PUBLIC INSTITUTIONS IN THE NORTHERN DISTRICT.

In Workhouse.	Referred to South District	...	3
	Referred to Gorleston	...	6
	Excluded as non-residents	...	9
	No information, therefore retained		
	in North District	...	72
			—
Total			90
			—
In Isolation Hospital.	Referred to North District	...	3
	Referred to South District	...	3
	Referred to Gorleston	...	6
			—
Total			12
			—

B.—DEATHS OCCURRING IN PUBLIC INSTITUTIONS IN SOUTHERN DISTRICT.

In Royal Naval Hospital.	Total 21, all non-residents		
In General Hospital.	Referred to North District	...	18
	Referred to South District	...	13
	Referred to Gorleston	...	2
	Excluded as Non-residents	...	10
			—
Total			43
			—

C.—DEATHS OCCURRING IN PUBLIC INSTITUTIONS IN GORLESTON.

In the Cottage Hospital. 3 Deaths, all referred to Gorleston.

D.—IN THE PORT OF GREAT YARMOUTH.

Referred to North District	...	0
Referred to South District	...	4
Referred to Gorleston	...	1
Excluded as Non-residents	...	8
		—
Total		13
		—

It will be seen that the Deaths in all the Public Institutions and the Port are allocated to their correct quarters, with the exception of 72 in the Workhouse Infirmary, which is situated in the Northern District. At present it is impossible to obtain the necessary information, and the “undistributed” deaths in the Workhouse increase the total death-rate in the Northern District by at least five per cent.

TABLE III.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904.

Causes of Death.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in or belonging to Localities (at all Ages).				Total Deaths in Public Institutions in District.
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 & upwards.	Northern.	Southern.	Gorleston and Southtown.	Ramham Vauxhall.	
Small Pox - -	—	—	—	—	—	—	—	—	—	—	—	—
Measles - -	12	1	10	1	—	—	—	4	3	3	2	—
Scarlet Fever - -	3	—	—	3	—	—	—	2	1	—	—	3
Whooping-cough -	33	19	13	1	—	—	—	11	3	19	—	—
Diphtheria & Mem- branous Croup -	24	1	12	11	—	—	—	1	4	19	—	8
Croup - -	1	1	—	—	—	—	—	—	—	1	—	—
Fever { Typhus - -	—	—	—	—	—	—	—	—	—	—	—	—
	3	—	—	—	2	—	1	1	—	2	—	1
	1	—	—	1	—	—	—	—	1	—	—	1
Other continued	1	—	—	—	—	—	—	—	—	—	—	—
Epidemic Influenza	22	—	—	—	1	10	11	13	8	1	—	11
Cholera - -	—	—	—	—	—	—	—	—	—	—	—	—
Plague - -	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhoea - -	53	45	4	—	—	—	4	17	17	18	1	2
Enteritis - -	13	11	1	—	—	—	1	7	2	4	—	1
Puerperal Fever -	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas - -	3	—	—	—	—	2	1	1	1	1	—	2
Other Septic Diseases	17	2	2	2	1	2	8	8	5	4	—	6
Phthisis (Pulmonary Tuberculosis) -	48	1	2	2	8	33	2	21	10	16	—	8
Other Tubercular Diseases - -	30	14	8	1	1	6	—	11	14	6	—	4
Cancer, Malignant Disease - -	55	—	—	—	—	28	27	22	14	19	—	15
Brouchitis - -	51	9	6	—	—	2	37	26	13	15	—	4
Pneumonia - -	21	2	6	3	2	5	3	9	7	5	—	5
Pleurisy - -	5	1	—	1	—	1	2	3	2	—	—	2
Other Diseases of Respiratory Organs	21	8	4	2	—	4	3	6	8	7	—	2
Alcoholism)	19	—	—	—	—	11	5	8	7	4	—	2
Cirrhosis of Liver)	—	—	—	—	—	—	—	—	—	—	—	—
Veneral Diseases -	3	2	—	—	—	1	—	1	1	—	1	—
Premature Birth -	28	28	—	—	—	—	—	16	2	10	—	2
Diseases and Acci- dents of Parturi- tion - -	5	—	—	—	—	5	—	2	2	1	—	1
Heart Diseases -	92	4	—	5	5	33	45	41	22	29	—	22
Accidents - -	22	4	3	3	2	6	4	6	10	6	—	8
Suicides - -	3	—	—	—	—	2	1	1	2	—	—	—
All other causes -	296	87	8	3	5	67	126	128	81	82	5	59
All causes -	887	240	79	39	27	221	281	366	240	272	9	169

THE ANALYSIS OF THE PRINCIPAL CAUSES OF DEATH.

(As tabulated in Table III.)

THE ZYMOTIC DISEASES.

The Zymotic Death-rate amounts to 2·48 per thousand of the estimated population, nearly 0·2 lower than the average for the past ten years, and very nearly equal to the average for the other 75 great towns.

The following table shows the mortality from the seven diseases from which the Zymotic Death-rate is calculated :—

A.—ZYMOTIC DISEASES NOT NOTIFIABLE DURING LIFE.

	1904.	1903.	Decennial Mean. (1894-1903.)
Measles	12	12	19·3
Whooping Cough	33	14	15·6
Diarrhœa	53	29	50·5

B.—ZYMOTIC DISEASES. (All known cases notified).

Small-pox	0	0	0·1
Scarlet Fever	3	27	7·4
Diphtheria	24	44	30·1
Typhoid & Continued Fever	4	6	16·6

MEASLES.

The fatality from Measles remained under the average at the same figure as in 1903.

WHOOPING COUGH.

This disease accounted for a largely increased number of deaths and for a large part of the increase in the Infantile Mortality, 57 per cent. of the deaths occurring in children under one year of age.

DIARRHŒA.

Over 40 per cent. of the Zymotic Mortality was due to Diarrhœa, a proportion which is above the local average for past years. In considering the causes of this mortality it is convenient to class Diarrhœa and Enteritis together, as the distinction between the two diseases is largely a matter of terminology. Of the total number of persons, 66 in all, who died during the year of Diarrhœa or Enteritis, 56 were under one year of age, five were aged between one and two years, and five were over sixty-five years.

In fifty-five cases enquiries were made as to the surroundings and circumstances of the Infants who died from Diarrhœa or Enteritis with the following results:—

Method of Feeding (excluding seven children over nine months old, who were, of course, fed on a mixed diet). Breast-fed, 6. Cows' Milk, 22. Condensed Milk, 9. Mixed diet, 11.

Cleanliness of house.—Very clean, 3. Fair, 32. Moderate, 16. Bad, 4.

Gross Sanitary Defects in seven houses.

Position of Food Store.—With external ventilation, 9. In living room or ventilated into living room, 38. Under staircase, 8.

Water Supply.—From the Waterworks in all cases except one.

Employment of Mothers.—In only six cases was it found that the Mothers had to leave their children in order to earn their livings.

The method of feeding was by far the most important factor in the production of the disease. This is only in accordance with experience, but it is as well to emphasise

the fact that breast-fed infants are much more likely to escape the disease than children who are brought up on Cows' milk, Condensed milk, or other substitutes. There are no figures available which show the exact proportion of breast-fed children in Great Yarmouth, so that it is not possible to make a mathematical comparison between the relative chances of survival in breast-fed and bottle-fed infants, but—as more Yarmouth babies are brought up on their natural food than the reverse—the figures are really more in favour of Breast Feeding than they appear, *i.e.*, seven to one on the breast-fed child.

Five of the six infants who were said to have been “fed on breast milk only” were under three months of age, and in one case the child appeared to have been upset by the mother, who was herself suffering from Diarrhœa.

The most noticeable circumstance in the surroundings of the children who were not fed on breast milk was the way in which the food was stored; in several cases in a cupboard under the stairs, and in the majority of the cases in the living room, or in a cupboard attached to the living room, affording no fresh air, and exposing the food to the continuous risk of contamination by dust, &c.

The statistics show that Diarrhœa would cause a comparatively trifling mortality if natural feeding was practically universal, but this is an ideal method of feeding which cannot be expected in the present state of public opinion, more especially among the middle classes.

Of course large numbers of bottle-fed infants survive and appear to do just as well as the breast-fed children, but the expense and trouble of bottle feeding (under safe conditions) makes its adoption undesirable for the average mother.

During past years the Sub-Registrars of Births have been supplied with circulars on the subject of infant

feeding, which they have distributed to persons who have registered births, but in 1904 the Registrar-General heard of the practice, and felt compelled to direct its discontinuance as the result of departmental experience. This was unfortunate, as the Names and Addresses of newly-born infants were not at that time communicated to the Sanitary Authority, and there was no means of discovering their parents

Owing to a recent change the Names and Addresses of all children whose births are registered are now communicated to the Health Committee, but the delay in registration which is permitted by the present Registration Acts makes this information less useful than it appears.

DEATHS FROM THE NOTIFIABLE ZYMOTIC DISEASES.

The number of deaths from this group of diseases was reduced by nearly 60 per cent., the principal reduction being in the fatality from Scarlet Fever, although there was, in addition, a considerable reduction in the fatality from Diphtheria and "Fever." For the fifth year in succession no resident of the Borough died from Smallpox. The detailed statistics of the notifiable diseases are more fully considered on pages 21—27.

TUBERCULOUS DISEASES.

Tuberculous Diseases of the Lungs and other Organs caused 78 deaths during the year. This number is considerably below the average for other populations living under similar conditions, and is very little above the local average for the past ten years, but it amounts to more than an eleventh of the mortality from all other causes of death, and is moreover a mortality due to a disease which is nowadays recognised to be largely, if not entirely, preventible.

Forty-eight of the deaths from Tuberculous Diseases were certified to be due to Tuberculosis of the Lungs,

while only thirty deaths were assigned to Tuberculosis of organs other than the Lungs, including deaths certified as due to General Tuberculosis. The majority of the deaths in the latter class occurred in children under five years of age, and for that reason alone, are not of the same economic importance as the deaths from Tuberculosis of the Lungs, a disease which was largely confined to heads of families and other breadwinners; more than 70 per cent. of the total number of deaths from Phthisis occurring among persons between the ages of 25 and 65, and over 85 per cent. in persons between the ages of 15 and 65.

In order to emphasise the importance of the age-distribution of the deaths from Tuberculosis of the Lungs, a table has been prepared by means of which a comparison may be made between the percentage of deaths due to Phthisis at different age periods and the percentage of the total deaths due to the notifiable diseases, which include Scarlet Fever, Diphtheria, Typhoid Fever, and Small-pox.

	Under 1 year.	1-5.	5-15.	15-25.	25-65.	65 & over.	at all ages.
Deaths from Phthisis as a percentage of the total mortality from all causes at the same ages	0·4	2·5	5·1	29·6	14·9	0·7	5·4
Deaths from the noti- fiable diseases as a similar percentage	0·4	15·2	38·5	7·4	0·0	0·35	3·5

During the latter part of last year disinfection was suggested in all cases of deaths in private houses, and was carried out in the great majority of cases, but no further preventive measure could be put in force, as the disease is not yet notifiable before death. There is no doubt that the infectious character of Tuberculosis of the Lungs is becoming more generally recognised by those who are in a position to judge, but a system of voluntary notification is not at present considered desirable, and possibly it will be better to delay this very obvious measure until some

provision has been made for the treatment of the more suitable cases. During the year the Corporation have obtained statutory powers to purchase the site of the Small-pox Hospital at Gorleston, and in any case, some permanent buildings will have to be erected. With a suitable arrangement of the buildings it should be possible to afford accommodation for a dozen Consumptive patients at very little extra cost, *i.e.*, during the lengthy intervals which occur between the occasions when the hospital is required for its nominal use.

RESPIRATORY DISEASES.

The number of deaths from Respiratory Diseases (excluding Phthisis) was a little below the average for the past ten years, owing to the reduction in the number of deaths from Bronchitis.

OTHER IMPORTANT CAUSES OF DEATH.

Cancer caused 55 deaths, Heart Disease caused 92, Accidents caused 22, and 19 were certified to be due to Alcoholism or Cirrhosis of the Liver.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1904.

TABLE IV.

Notifiable Disease.	Cases notified in whole District.							Total Cases Notified in each Locality.				No. of Cases Removed to Hospital from each Locality.			
	At all Ages.	At Ages—Years.						Northern District.	Southern District.	Golestown and Southtown.	Runham Vauxhall.	Northern District.	Southern District.	Golestown and Southtown.	Runham Vauxhall.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.								
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	162	3	39	85	20	15	—	22	39	101	—	16	22	43	—
Membranous Croup	52	2	1	1	4	38	6	24	12	16	—	—	—	—	—
Erysipelas	140	2	30	91	14	3	—	50	54	32	5	32	31	9	3
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	64	—	8	25	18	12	1	21	28	15	—	12	12	2	—
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Puerperal Fever	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	419	7	78	202	56	69	7	116	134	164	5	60	65	54	3

NOTIFICATION OF INFECTIOUS DISEASES.

The table on page 20 presents an analysis of the notifications received during 1904, and shows a total reduction of over 50 per cent. on the figures of the previous year.

SCARLET FEVER.

A great reduction occurred in the number of notifications of this disease. This was not unexpected, as it has been found that epidemics of this disease tend to run in fairly definite cycles of years, and it may be presumed that the figures for 1903 marked the height of the epidemic wave.

In addition to the considerable reduction in the number of cases, there was an even greater relative reduction in the number of deaths, the number of cases being reduced to a little more than a third (418 to 140), while the number of deaths was reduced to one-ninth (27 to 3).

Although the great majority of the patients were attending the Elementary Schools, the influence of school attendance was not sufficiently evident to make it desirable to recommend the closure of any of the schools during the year.

Eight of the total number of the cases were not notified until they were found to be "peeling," and in two of these cases it is probable that the existence of the disease was recognised by the guardians of the patients and was wilfully concealed. Fortunately, no evil results arose from this action as far as the general public were concerned, but three further cases occurred in one house and two in the other, which would, in all probability, have been avoided if the earlier cases had been properly isolated.

The monthly incidence of the disease is shown in the following table :

Month.	Total Number.	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	No. of Removals to Hospital
January	16	5	8	2	1	9
February	18	6	9	2	1	8
March	13	3	5	5	0	6
April	12	3	7	2	0	7
May	25	6	13	3	3	13
June	11	8	2	1	0	5
July	5	3	1	1	0	5
August	3	2	1	0	0	1
September	11	4	1	6	0	5
October	7	5	0	2	0	4
November	7	3	0	4	0	4
December	12	2	6	4	0	8
Totals	140	50	53	32	5	75

DIPHTHERIA AND MEMBRANOUS CROUP.

The number of notifications of these diseases also shows a considerable reduction on the corresponding figures for 1903. Although the reduction in the number of cases is only one-half as compared with a two-thirds reduction in the number of cases of Scarlet Fever, it is of much greater interest, as the incidence of Diphtheria does not appear to run in cycles of years as Scarlet Fever does, and when Diphtheria has once become endemic in a locality it is likely to remain constantly present. A comparison of the monthly incidence of the disease in 1904, with the monthly average for the past six years, shows that there is reason for believing that Diphtheria has disappeared as an endemic disease in the Borough.

A special report on the recent prevalence of Diphtheria was submitted in February, so that it is unnecessary to repeat the circumstances of the cases here. The rapid diminution in the number of the cases with the ultimate

extinction of the disease as an endemic in the Borough can only be ascribed to the information obtained from the systematic examination of convalescent patients, doubtful cases, and "contacts," by means of Bacteriology (vide pages 30 and 31).

Month.	Average in month (1898-1903).	Total for month in 1904.	Northern District.	Southern District.	Gorleston and Southtown.	No. of Removals to Hospital.
January	28	20	1	7	12	13
February	18	36	5	12	19	14
March	16	50	4	3	43	17
April	13	16	5	3	8	9
May	16	11	0	1	10	5
June	12	4	1	1	2	4
July	19	8	2	3	3	5
August	17	6	0	5	1	5
September	16	4	2	2	0	4
October	26	5	2	1	2	4
November	32	1	1	0	0	1
December	30	1	0	0	1	0
Totals	243	162	23	38	101	81

TYPHOID OR ENTERIC FEVER.

Sixty-four persons were notified to be suffering from this disease in 1904. This number is only two-thirds of the average for the past ten years, but it is considerably higher than the corresponding numbers in 1902 and 1903. On the other hand, there were only three deaths from Typhoid Fever in 1904, which is less than half the number of deaths in 1902 and 1903.

The circumstances of the cases are mentioned under the months in which the notifications were received.

January. Five notifications. Two were nursed in the Workhouse Infirmary. Two followed the consumption of polluted mussels. One was of doubtful origin.

- February.** Two notifications of cases in which the infection could not be traced.
- March.** Three notifications. One was a striking case of infection from polluted mussels. The patient, her husband and her mother-in-law all ate river mussels on one occasion; the husband did not suffer from any apparent ill-effects, the mother-in-law suffered from severe diarrhœa for several days, and the patient took to her bed with Typhoid Fever three weeks later.
- April,
May
and
June.** Only one notification in each of these months. The first case was that of a boy who had been eating cockles, shellfish which are known to carry the infection unless they are boiled for an unusually long time. The source of the infection in the second case could not be discovered, but the third case was due to personal infection contracted by nursing the second case.
- July.** No notification.
- August.** During the first half of this month no case was notified, but on the 15th a boy, who had been eating "foreign" cockles, was found to be suffering from the disease. With this one exception no case was notified in August until the end of the month, when fourteen cases were notified in five days. At the time the number appeared alarming, as it seemed probable that some extensive source of infection was in operation, but in a few days it became obvious that several of the patients were not suffering from typical Typhoid Fever, and this was afterwards confirmed

by the bacteriological examination of the patients, who were removed to the Isolation Hospital as a measure of precaution.

- September.** Of the cases which had typical Typhoid Fever, one patient had been eating river mussels; two were visitors who were incubating the disease on their arrival in the Borough, one patient had been nursing a previous case in the same house, one patient had been assisting in a laundry, and two cases occurred in houses which had very dilapidated sanitary arrangements.
- October.** Seven notifications. One followed the consumption of polluted shellfish, and one patient was a visitor incubating the disease on arrival.
- November.** Nine notifications. Two appeared to be due to nursing previous patients. Three followed the consumption of shellfish, in two instances known to be polluted.
- December** One notification. A very severe case of doubtful origin.

It will be noticed that ten cases followed the consumption of shellfish, and in seven cases it was certain that the shellfish had been exposed to sewage pollution.

Dr. Klein has recently completed an investigation into the "Vitality of the Typhoid Bacillus in Shellfish," on behalf of the Worshipful Company of Fishmongers of London, and a brief summary of his conclusions is given below :—

Oysters, Mussels, and Cockles readily take up the Typhoid Bacillus into their interiors when placed in polluted water.

Oysters readily cleanse themselves of the ingested bacilli if kept for at least a week in clean sea water which is frequently changed.

Mussels take up the Typhoid Bacillus more readily than do Oysters or Cockles and they get rid of them more quickly than Cockles, but the cleansing process is "incomparably slower than in Oysters."

Cockles cleanse themselves of Typhoid Pollution very slowly, and are dangerous for a very long time after they have been removed from the polluted water, and have been given every chance to cleanse themselves in clean water.

The part of this Report, which refers to Mussels, is of considerable local interest, as there are large beds of Mussels in the Haven into which the sewer outfalls flow. It is true that the rapid tidal current in the Haven cleanses the channel of gross pollution and that the water is not to be compared with the filthy semi-stagnant water of the average harbour, but the Mussels have daily opportunities of taking up deleterious matter from the dilute sewage which flows over them.

As far as possible the specific pollution of Typhoid Fever is prevented from going into the sewers. In every case of Typhoid Fever which is nursed at home, pails are provided for the reception of the excreta and the contents of the pails are burnt every day. There is no doubt that a considerable proportion of the pollution is thus destroyed, but it is impossible to believe that no specific pollution goes into the sewers from the patients who are recognised to be suffering from Typhoid Fever. In addition, there may be cases of such mildness that they are never recognised as Typhoid Fever, and never come under medical treatment. These cases are infectious and would pollute the sewers, and eventually the Mussels, without our knowledge, until the effects became apparent.

Seven years ago my predecessor (Dr. Bately) pointed out the risk of contracting Typhoid Fever from Mussels dredged out of the Haven, and there can be no doubt that the diminution in the number of cases in the Borough since that time is largely due to his advice in the matter. For several years notices have been posted in suitable

positions warning the public "not to use River Mussels as an article of Food," but there are still many people who apparently do not realise the risk which they are running. As the Public will not protect themselves, further action is necessary, and the simplest procedure would appear to be the absolute prohibition of all dredging for Mussels in the Haven, whether intended for human food or for bait.

The removal of all the Mussels in the Haven is impracticable owing to the extent of the beds, and the removal of all risk of polluting the Mussels is impossible; if the sewerage of the Borough were entirely diverted from the Haven there would still be a distinct risk of pollution from ships in the Haven and from water coming down the rivers.

ERYSIPELAS.

Fifty-two notifications of cases of Erysipelas were received during the year, a considerable reduction on the number in 1903.

PUERPERAL FEVER.

There was only one notification of this dangerous disease in 1904.

THE MIDWIVES' ACT OF 1902.

This Act was intended to raise the technical standard of the Midwives attending poor women, but is practically a dead letter in this Borough, owing to the permissive character of its requirements. Despite the issue of circulars on the subject to all known Midwives in Great Yarmouth, followed up by personal visits in many cases, only one uncertificated Midwife had registered up to the end of 1904. At the present time a Midwife is not bound to register, and suffers from no disability under the Act, except that she may not *call* herself a Midwife although she is doing all the ordinary work of a Midwife. After 1910 no woman will be allowed to *act* as a paid Midwife unless she is on the Register of the Central Midwives Board

and, as the period of grace for the registration of uncertificated Midwives is now past, considerable hardship (to the poor) may ensue.

THE ISOLATION HOSPITALS.

The Smallpox Hospital was unoccupied during the year, as no case of Smallpox was notified for the second year in succession.

The Estcourt Road Hospital for the Infectious Diseases, other than Smallpox, received nearly half of the total number of cases of Scarlet Fever, Diphtheria and Typhoid Fever which were notified during the year. The details are shown in the following tables.

ADMISSIONS, DEATHS AND DISCHARGES AT THE ESTCOURT ROAD HOSPITAL.

	Scarlet Fever.	Enteric Fever.	Diphtheria.	Diphtheria "Contacts."	Total.
Remaining on					
January 1st, 1904	21	1	13	0	35
Admitted during 1904	75	26	82	6	189
Died in Hospital	3	0	9	0	12
Discharged	79	21	86	6	192
Remaining on					
December 31st, 1904	14	6	0	0	20

ADMISSIONS INTO THE ESTCOURT ROAD HOSPITAL IN EACH MONTH OF 1904.

	Scarlet Fever.	Enteric Fever.	Diphtheria.	Diphtheria "Contacts."	Total.
January ..	9	1	13	0	23
February ..	8	0	14	0	22
March ..	5	0	17	0	22
April ..	6	0	9	0	15
May ..	15	0	5	0	20
June ..	4	0	4	0	8
July .	6	0	5	0	11
August ..	1	0	5	6	12

	Scarlet Fever.	Enteric Fever.	Diphtheria.	Diphtheria "Contacts."	Total.
September ..	5	16	5	0	26
October ..	4	2	4	0	10
November ..	4	6	1	0	11
December ..	8	1	0	0	9
Totals	75	26	82	6	189

The average period of detention in Hospital for each case completed during the year 1904 was :—

For Scarlet Fever ..	54.7 days.
For Diphtheria ..	35.8 days.
For Diphtheria Contacts ..	34.8 days.
For Typhoid Fever ..	49.2 days.

The number of patients removed to the Hospital in proportion to the number of notified cases of the different infectious diseases was :—

For Scarlet Fever - 75 out of 140 or a per centage of 53.6

For Diphtheria - 81 out of 162 or a per centage of 50.0

(This excludes one patient removed from a ship in the Port and six "contact" cases.)

For Typhoid Fever - 26 out of 64 or a per centage of 40.6

DISINFECTION.

The following articles were passed through the steam disinfecter at the Hospital :—

Beds	255	Counterpanes	337
Pillows	652	Mattresses	126
Bolsters	214	Clothing	1,760
Slips	593	Carpets	60
Sheets	369	Rugs	81
Hangings	23	Cushions	9
Blankets	584	Various	312
Total	...		5375

355 Rooms were disinfected with Formalin vapour.

BACTERIOLOGICAL WORK.

The Bacteriological Laboratory at the Isolation Hospital was in constant use and proved of great value, more especially in connection with cases of Diphtheria. Owing to the pressure of other work during the first few weeks of my appointment, it was not possible to make systematic bacteriological examinations in all cases of Diphtheria, but from February onwards no patients, with three exceptions, were discharged from the Isolation Hospital unless they had been examined three times for the presence of Diphtheria Bacilli with negative results.

In addition, a large number of "swabs" were examined for patients who were not in the Hospital, either for the purpose of settling doubtful diagnoses, or in order to ascertain when the patients were fit for discharge from isolation in their own homes. A considerable number of persons who had been in contact with Diphtheria, but who were not actually suffering from the disease, were also examined bacteriologically in order to see if they were carrying the infection in their throats; the records of this class are not complete as the results of negative examinations were not classified during the first few weeks of the year, probably the number of negative examinations was well over two hundred.

Fifteen examinations for Diphtheria Bacilli were made in connection with patients admitted into the Isolation Hospital for Scarlet Fever, but presenting additional symptoms suggestive of Diphtheria.

The results of investigations for Diphtheria Bacilli in the Laboratory were as follows:—

	In cases of Diphtheria.	In "contacts" of Diphtheria Patients.	In Scarlet Fever Patients.	Totals.
Bacilli found	112	12	5	129
Bacilli not found	222	114	10	346
	—	—	—	—
Totals	334	126	15	475

It should be noted that the figures do not refer to separate patients, but to the number of separate examinations, some of the patients being examined many times before they were found fit for discharge from isolation.

In three cases where the patients retained the infection for unusually long periods (in one case more than five months), further examinations were made by Dr. Eyre, and a few examinations were made by other persons during my absence from the Hospital.

The Agglutination test for blood in cases of Typhoid Fever was applied 31 times by myself in the Hospital laboratory, and in addition six specimens were examined in Dr. Eyre's laboratory in order to confirm results with other strains of Typhoid Bacilli.

Only two specimens of sputum from suspected cases of Phthisis were examined.

ACTION TAKEN UNDER THE HOUSING OF THE WORKING CLASSES ACTS.

Nine certificates were presented to the Health Committee under these Acts. Action was taken in all the cases, with the result that two houses were demolished, six houses were rendered fit for habitation, and one dwelling was permanently closed by order of the Magistrates.

Report on Sanitary Work.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I have the honour to submit to you my Tenth Annual Report of the work carried out in the above department during the year 1904. Particulars as to the nature and number of nuisances reported to the Health Committee, and dealt with by Statutory notices, also works of a similar nature, but dealt with by Preliminary notices.

I am, Sir,

Yours faithfully,

SAMUEL HASSALL.

REPORT FOR 1904.

TABLE A.

	No of Visits.
Special inspections and investigations of complaints	2,385
House to house inspections	712
Visits in connection with infectious disease	447
Re-inspections to ascertain progress of Statutory and Preliminary notices ...	4,443
Bakehouses	482
Common lodging-houses (day-time) ...	97
„ „ „ (night-time) ...	128
Slaughter-houses and knackers' yards ...	291
Offensive trades	155
Ice cream vendors	44
Marine stores	56
Factories and workshops	238
Total	<hr/> 9,478 <hr/>

Samples of well-water collected and forwarded to Cambridge for analysis ...	38
Samples of Food, etc., purchased under the Sale of Food and Drugs Acts, and submitted to the Public Analyst at Norwich	94
Rooms disinfected after infectious disease	355
School notices sent in connection with infectious disease	54 ¹
Houses, schools, and workshops to which the smoke, water, or chemical tests have been applied to the drains ...	243
Prosecutions under the sale of Food and Drugs Acts	16
Smoke observations taken	30

TABLE B.

During the year the following works have been carried out under Statutory and Preliminary notices :—

	Numbers.
Privies replaced with water closets ...	439
New drains laid	148
Drains cleaned and repaired	219
Pan container closets abolished	19
Pedestal closets erected	30
Earthenware gully-traps fixed	579
Flushing cisterns fixed to closets ...	125
Filthy houses cleansed and linewashed ...	35
Offensive accumulations removed ...	64
Nuisances abated from overcrowding ...	5
Animals and poultry removed	23
Cesspools abolished	5
Water closets repaired	59
New sinks erected	139
Drains intercepted from sewers	57

Rain-water cisterns abolished	...	...	98
Sink waste-pipes disconnected	..	...	66
Yards and passages concreted	...	...	248
Drains ventilated	...	...	136
Spouting and fall pipes provided		...	106
Cowsheds and slaughter houses limewashed			7
Bake-houses limewashed	...	...	30
Houses provided with Company's water	...		47
Polluted wells closed	...	...	43
Houses made fit for habitation	...	...	9
Rain-water pipes disconnected from drains			66
Dilapidations made good	...	...	35
New urinals provided	...	...	64
Under floor spaces ventilated	...	...	16
Miscellaneous items	...	...	19

TABLE C.

Showing the localities of sewer gas escapes after drain testing :—

			Number.
Into Breakfast rooms, &c.	...	...	4
„ Kitchens and sculleries	...	...	15
„ Basement kitchens and cellars		...	2
„ Lobbies and other parts of houses		...	9
„ Internal water closets	...	...	11
„ External water closets	...	...	66
„ Yards and passages	...	...	51
From Defective w.c. soil pipes	...	...	9
„ Defective ventilating shaft		...	6
„ Heads and joints of rain-water pipes		...	12
„ Around yard gullies	...	...	14
„ Defective drain connections		...	16
Total		...	<hr/> 215 <hr/>

DRAIN TESTING.

During the year 62 complaints have been received from householders and others, respecting the condition of the drains and sanitary fittings of houses and other premises. An examination and the smoke test were applied in every instance, and this resulted in the detection of 51 defective drains, &c. The necessary notices were served in the usual course, and in every instance compliance was made and the works executed. The drains have also been tested in connection with all houses where Typhoid and Diphtheria have occurred.

SALE OF FOOD AND DRUGS ACTS.

The following table shows the number of samples of articles purchased and submitted for analysis, the extent of adulteration, and magisterial proceedings:—

Article.	No. of Samples.	Result of Analysis.	
		Genuine.	Adul.
Milk	67	43	24
Extent of Adulteration.		Remarks.	
10 per cent. entirely devoid of fat.		Cautioned.	
9 per cent. added water.		Fined 10s. and £1 0s. 6d. costs.	
18 per cent. devoid of fat.		Fined 20s. and 12s. costs.	
7 per cent. devoid of fat.		Cautioned.	
10 per cent. added water.		Fined 20s. and 10s. costs.	
6 per cent. added water.		Cautioned.	
29 per cent. devoid of fat.		Case dismissed.	
41 per cent. devoid of fat.		Fined 10s. and 10s. costs.	
6 per cent. devoid of fat.		Cautioned.	
12 grains per pint of Boric acid.		No action.	
3½ grains per pint of Boric acid.		No action.	
15¾ per cent. added water.		Fined 20s. including costs.	
12 per cent. devoid of fat.		Fined 20s. and 9s. costs.	
7½ per cent. added water.		Fined 20s. including costs.	
3 grains per pint of Boric acid.		No action.	
Contained not less than .004 per cent. of Formaldehyde.		No action.	
15 per cent. devoid of fat.		Fined 2s. 6d. and 30s. costs.	
22 per cent. added water.		Fined 40s. and 13s. costs.	
10·8 per cent. added water.		Fined 20s. and 10s. costs.	

		Extent of Adulteration.				Remarks.	
		18·8 per cent. added water.				Fined 10s. and 31s. costs.	
		15 per cent. devoid of fat.				Fined 5s. and 29s. costs.	
		20 per cent. added water.				Fined 20s. and 29s. costs.	
		12 per cent. added water.				Fined 10s. and 9s. costs.	
Article.	No. of Samples.	Result of Analysis				Extent of Adulteration.	Remarks
Butter	6	...	4	...	2	97 per cent. Margarine.	No action.
						96 per cent. Margarine.	No action.
Cayenne							
Pepper	1	...	1	...	0		
Coffee	1	...	1	...	0		
Lard	1	...	1	...	0		
Cheese	1	...	1	...	0		
Sweets	1	...	1	...	0		
Bread	1	...	1	...	0		
Flour	1	...	1	...	0		
Demarara							
Sugar	1	...	1	...	0		
Ice Cream	2	...	2	...	0		
Six Ale	2	...	2	...	0		
Rum	2	...	1	...	1	45 per cent. added water.	No action.
Mild Ale	2	...	2	...	0		
Scotch							
Whiskey	2	...	2	...	0		
Malt							
Vinegar	2	...	2	...	0		
Skimmed							
Milk	1	...	1	...	0		
Totals	94		67		27		

SEIZURES OF UNSOUND FOOD.

Nineteen fowls; 84 oranges; 38 bananas; 13 lbs. grapes; 5 lbs. plums; 66 whiting; 31 herrings; 1½ gallons shrimps; and 28 lbs. of margarine.

PROSECUTIONS.

A fish hawker was fined £1 and 9s costs for exposing herrings and shrimps for sale that were unfit for human food.

A case against a greengrocer for exposing bananas that were unfit for food was dismissed by the Magistrates.

FACTORY AND WORKSHOPS INSPECTION.

INSPECTIONS.

Premises.	Inspections.	Written Notices	Prosecu- tions.
Factories, including factory laundries	34	6	nil
Workshops, including workshop laundries and fish curers	106	22	1
Work-places	52	4	
Home-workers' premises...	46	10	
Total	<u>238</u>	<u>42</u>	<u>1</u>

DEFECTS FOUND.

			NUMBER OF DEFECTS.		
Particulars.			Found.	Remedied.	Number of Prosecutions.
Want of cleanliness	...	...	7	7	
Want of ventilation	...	...	2	2	
Overcrowding	...	...	3	3	
Want of drainage of floors	...	...	1	1	
Other nuisances	...	...	2	2	
Sanitary Accommodation	{	Insufficient	10	9	1
		Defective	14	14	
		Not separate	9	9	
Total	...	...	<hr/>48	<hr/> 47	<hr/> 1

Section 22 of the Public Health Amendment Act has been adopted by this Corporation, but the works delegated to the Surveyor are carried out by the Sanitary Inspectors. One W.C. is provided for each 25 persons, and separate conveniences are enforced in all instances where persons of both sexes *are employed*.

NUMBER OF WORKSHOPS, &c., ON THE REGISTER
AT THE END OF THE YEAR 1904.

Bake-houses	...	...	84
Baking-powder makers	...	...	2
Boat builders	...	...	6
Blacksmiths	...	...	6
Builders	...	...	10
Basket makers	...	...	2
Carpenters	..	..	9
Coopers	...	...	1
Cabinet makers	...	...	2
Cork cutters	...	...	2
Dressmakers	...	...	35
Fish curers	...	...	16
Foundries	...	...	2
Hairdressers	...	...	6
Laundries	...	...	4
Milliners	...	...	15
Net makers	...	...	6
Picture framers	...	..	2
Plumbers and Painters		...	8
Scale makers	..	...	1
Tailors	...	...	24
Whitesmiths	2
Shoemakers	6
Total			<u>251</u>

HOME WORK.

Lists received	...	6	Out workers	...	57
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PROSECUTION.

A fish merchant was prosecuted for the non-compliance with a Sanitary Order, requiring him to provide a proper water supply to a W.C., also water for drinking purposes for the work-people engaged at a fish-house. The Magistrates made an order for the work to be carried out forthwith, the defendant to pay costs of the proceedings.

Report of the Port Sanitary Inspector.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to submit to you my third Annual Report upon the inspection of shipping entering the Port during the year 1904.

The number of vessels inspected was as follows : —

Vessels from Foreign Ports	..	327
Vessels coastwise	..	282
		<hr/>
Total	..	609
		<hr/>

These vessels were of the following nationalities :—

British	..	..	324
German	..	..	40
Dutch	..	..	55
Danish	..	..	16
Norwegian		..	89
Swedish	..	..	58
French	..	..	9
Russian	..	..	14
Belgian	..	..	3
Italian	..	..	1
			<hr/>
Total	..		609
			<hr/>

Of these vessels, 392 were steamers and 217 were sailing vessels.

The sanitary conditions were found satisfactory on board 565 of the above vessels, and the following list shows the nature of defects found on board the remaining 44 vessels :—

Dirty forecastles	..	..	31
Forecastles requiring limewashing			2

Sanitary repairs necessary	..	4
Defects in ventilation	..	5
Foul beef casks	..	2
Unwholesome meat (15 pieces)	..	1
Foul ships' holds	..	4
		—
Total	..	49
		—

These defects necessitated re-inspections in about 44 cases.

BILGE PUMPING FROM FISHING VESSELS.—Three vessels were reported for creating this offence, and in two cases legal proceedings were instituted against the skippers, who were each fined five shillings and costs.

On February 24th, 1904, I took a sample of drinking water from a Dutch steamer from Rotterdam, and forwarded same to Cambridge for analysis; as a result I advised the captain to take water from this Port instead of at Rotterdam. He, however, ceased trading here shortly afterwards.

1904.

SICKNESS.

Sept. 2nd.—First mate of the s.s. "Olivene," was suffering from Diphtheria. He was examined by the Medical Officer of Health and removed to the Isolation Hospital, and his cabin thoroughly disinfected.

Sept. 3rd.—Two of the crew of the Hull steam drifter, "Montrose," had sore throats, and were examined by the Medical Officer of Health, who found nothing of an infectious nature.

Sept. 15th.—One hand of the Yarmouth drifter, "Lina," was examined by the Medical Officer of Health, and found to be suffering from Pustular Eczema.

Sept 30th.—The chief engineer of the Shields steam drifter, “North Tyne,” had to be removed to the General Hospital, suffering from Cerebral Abscess.

Nov. 10th.—The British schooner, “Crystal Stream,” entered the Harbour, and reported that the captain died suddenly the previous evening in the roads. An inquest was held, with a verdict of “Death from Natural Causes.”

The Collector of H.M. Customs kindly supplies the following information :—

No. of vessels arriving in the Port.				Gross Tonnage.				No. of Crews.*	
FOREIGN.		COASTWISE.		FOREIGN.		COASTWISE.		Foreign.	British.
Sail.	Steam.	Sail.	Steam.	Sail.	Steam.	Sail.	Steam.		
253	224	467	800	30,281	59,734	39,652	102,251	3,029	6,123

* Estimates only.

Report of the Fish Inspector for the Year 1904.

The following is a list of unsound and unwholesome fish seized on the Fish Wharf during the year, and destroyed after being formally surrendered, or by a magistrate's order :—

Date. 1904.	Description.		Estimated Weight.		
			Tons	cwt.	qrs.
Jan. 21st.	A quantity of Whelks	...		1	0
April 2nd.	1 trunk Whittings	...			3
„ 5th.	1 „ „	...			3
June 4th.	3 trunks mackerel	...	1		2
„ 8th.	4 „ „	...	2		0
„ 10th.	2 „ „	...	1		0
„ 15th.	1 „ „	...			2
„ 22nd.	2 trunks Whiting	...	1		2
„ „	1 trunk Gurnards	...			3
„ 24th.	18 Crabs	...			1
„ 27th.	15 Roker	...			1
July 1st.	2 trunks Whiting and Roker	...	1		2
„ 30th.	1 box iced Herrings	...			1
Aug. 1st.	30 Lobsters	...			1
„ 3rd.	1 box Mackerel	...			1
„ 6th.	6 boxes smoked Haddocks	}			3
„ 8th.	1 box „ „				
„ „	A quantity of Norwegian Shrimps		1		2
„ 9th.	100 Mackerel	...			2
Sept. 16th.	1 swill Herrings	...	2		0
„ 17th.	300 Mackerel	...	1		2
„ 26th.	1 trunk Mackerel	...			2
Oct. 13th.	12 swills Herrings	...	1	4	0
„ 20th.	4 kits Herrings	...		8	0
„ 21st.	6 swills Herrings	...	12		0
„ „	3 „ „	...		6	0
„ „	7 „ „	...		14	0
„ „	52 „ „	...	5	4	0

Oct. 21st.	1 swill Herrings	..	...	2	0
" "	11 kits Herrings	...	...	1	2 0
" "	6 swills Herrings	...	...	12	0
Oct. 22nd.	30 " "	...	...	3	0 0
" "	24 " "	...	...	2	8 0
" "	3 " "	...	...	6	0
" "	6 " "	...	...	12	0
" "	11 " "	...	...	1	2 0
" 24th.	20 " "	...	...	2	0 0
" 27th.	67 " "	...	...	6	14 0
" 30th.	7 " "	...	...	14	0
" "	26 " "	...	...	2	12 0
" "	1 " "	...	...	2	0
" "	13 " "	...	...	1	6 0
Nov. 10th.	20 " "	...	...	2	0 0
" "	45 crans Herrings	...	...	4	10 0
" "	25 " "	...	...	2	10 0
" 11th.	141 swills Herrings	...	...	14	2 0
" "	68 " "	...	...	6	16 0
Total				...	51 17 1

Report of the Inspector under the Canal Boats Acts.

Besides the well-known type of vessels called "Norfolk Wherries," there has appeared upon our water-ways during the last two or three years a large number of lighters, which are towed either by the few steam barges, which themselves carry cargoes, or by special tugs for up-river work. Most of these lighters, steam barges, and also quite a number of recently built wherries, are registered by the Board of Trade, and although I inspect them in the ordinary course of events, they do not actually come under the working of the Canal Boats Acts.

During the year I made 142 inspections of the various craft, and in only one instance have I found a sanitary defect, that being a boat requiring a water vessel of larger capacity.

The infringements of the Acts, other than sanitary matters, were as follows:—

Non-registration	..	7
Masters without Certificates	..	17
Boats not duly marked	..	8

The total number of vessels now registered under the Canal Boats Acts by this Authority is 57.

No sickness has been discovered on board any of these vessels, nor has any notification of Infectious Disease been received during the year.

In conclusion, I beg to say that the sanitary condition of our local river craft is exceedingly creditable to the men working them.